



UNITED STATES PATENT AND TRADEMARK OFFICE

AK

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/887,848	06/22/2001	Robert C. Newman JR.	P99-16	8629

7590 08/05/2003

Patent Department
Lutron Electronics Company, Inc.
7200 Suter Road
Coopersburg, PA 18036-1299

EXAMINER

LEE, WILSON

ART UNIT PAPER NUMBER

2821

DATE MAILED: 08/05/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/887,848

Applicant(s)

NEWMAN ET AL.

Examiner

Wilson Lee

Art Unit

2821

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 April 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3-9 and 11-36 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 14-36 is/are allowed.
- 6) ☒ Claim(s) 1,3,5 and 9 is/are rejected.
- 7) ☒ Claim(s) 4,6-8 and 11-13 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other: _____

Response to Argument

Applicant argues that "cat ear power supply" is defined in the figures 29 and 30, the rejection under 35 U.S.C. 112 2nd paragraph should be withdrawn. However, the functional or structural description of a cat ear power supply has not been disclosed in the claims. For examination purpose, any power supply being capable of supplying power may be considered as a cat ear power supply.

Claim Rejections – 35 U.S.C. 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in-

(1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effect under this subsection of a national application published under section 122(b) only if the international application designating the United States was published under Article 21(2)(a) of such treaty in the English language; or

(2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that a patent shall not be deemed filed in the United States for the purposes of this subsection based on the filing of an international application filed under the treaty defined in section 351(a).

Claims 1 and 5 are rejected under 35 U.S.C. 102(e) as being anticipated by Cho et al. (6,316,883).

Regarding Claim 1, Cho discloses an electronic ballast (See Figures 4 and 5) for driving a gas discharge lamp (lamp), the ballast drawing an essentially sinusoidal AC input current from an AC power supply (V_{src}), the ballast comprising:

- a rectifier (1) for rectifying said AC input voltage from said AC power supply to produce a rectified bus voltage;

- an inverter (2) for converting said rectified bus voltage to a high frequency AC drive voltage to drive the lamp; and
- a valley-fill circuit (4) as a current drawing means coupled to receive the rectified bus voltage for selectively drawing current from the AC power supply (V_{src}) so that the input current to said ballast is essentially sinusoidal (See Abstract and Col. 13, lines 37-40) and the current drawing means including a cat ear power supply (Cdc1 and Cdc2)

Regarding Claim 5, Cho discloses that an electronic ballast for driving a gas discharge lamp, the ballast having improved input current total harmonic distortion (See Col. 1, lines 27-46 and Col. 8, lines 27-47), the ballast comprising:

- A rectifier (1) for rectifying an AC input voltage from an AC power supply to produce a rectified bus voltage;
- An inverter (2) for converting the rectified bus voltage to a high-frequency AC output voltage to drive said lamp; and
- A means (4) for drawing current from the AC power supply near the zero crossing of the AC input voltage so that the input current THD is substantially reduced (See Col. 1, lines 27-46, Col. 8, lines 27-47 and Col. 13, lines 37-53) and the means for drawing current including a cat ear power supply (Cdc1 and Cdc2).

Claims 1, 3, 9 are rejected under 35 U.S.C. 102(b) as being anticipated by Konopka (5,994,847).

Regarding Claim 1, Konopka discloses an electronic ballast (See Figures 4-6) for driving a gas discharge lamp (30), the ballast drawing an essentially sinusoidal AC input current from an AC power supply (20), the ballast comprising:

- a rectifier (120) for rectifying said AC input voltage from the AC power supply to produce a rectified bus voltage;
- an inverter (300) for converting said rectified bus voltage to a high frequency AC drive voltage to drive the lamp; and
- a valley-fill circuit (See Figure 5 and Col. 2, lines 12-15) as a current drawing means coupled to receive the rectified bus voltage for selectively drawing current from the AC power supply (20) so that the input current to said ballast is essentially sinusoidal, and the current drawing means including a cat ear power supply (500).

Regarding Claim 3, Konopka discloses that the power supply (500) includes means for drawing current from said AC power supply when said AC input voltage waveform is less than a predetermined value (prevents excessive flow of DC) (See Col. 2, lines 65-67).

Regarding Claim 9, Konopka discloses that an electronic ballast for driving a gas discharge lamp (30), the ballast having improved power factor and total harmonic distortion (THD) (See Col. 5, lines 44-62), the ballast comprising:

- A rectifier (120) for rectifying an AC input voltage from an AC power supply to produce a rectified bus voltage;

Art Unit: 2821

- A valley-fill circuit (See Figure 5 and Col. 2, lines 12-15) having an energy storage device (240), said valley-fill circuit electrically coupled to receive the rectified bus voltage;
- An inverter (300) for converting the rectified bus voltage to a high frequency AC output voltage to drive the lamp; and
- An energy delivery control means (500) for controlling the delivery of energy to the energy storage device over a substantial portion of each half-cycle of the AC input voltage so that the ballast power factor and THD are substantially improved (e.g. only 30% of THD) (See Col 5, lines 44-62).

Allowable subject matter

Claims 4, 6-8, 11-13 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claims 14-36 are allowed.

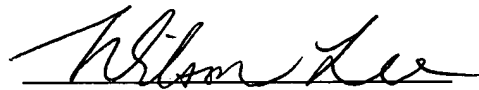
Correspondence

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Wilson Lee whose telephone number is (703) 306-3426.

Any inquiry of a general nature or relating to the status of this application should be directed to the Technology Center receptionist whose telephone number is (703) 308-0956.

Art Unit: 2821

Papers related to Technology Center 2800 applications may be submitted to Technology Center 2800 by facsimile transmission. Any transmission not to be considered an official response must be clearly marked "DRAFT". The Technology Center Fax number is (703) 308-7722 or (703) 308-7724.

A handwritten signature in black ink, appearing to read "Wilson Lee", written over a horizontal line.

Wilson Lee
Patent Examiner
U.S. Patent & Trademark Office

WL
7/28/03